

**SCHEDULE A -ADEQUACY REVIEW CHECKLISTS
FOR §4.51 AND §4.61**

LICENSE APPLICATION
MAJOR CONSTRUCTED HYDRO EXHIBITS A-D, F, G, REGULATIONS (§4.51)

SUBJECT	DEFICIENT	COMMENTS
<p>I. Initial Statement §4.51</p> <p>Project Name</p> <p>Project Location</p> <p>Address</p> <p>Owners of existing facilities</p> <p>Federal, state, local political entities and facilities identified §4.32(a)(2)</p> <p>Notice issued in local newspapers §4.32(b)(6)</p> <p>Start and completion of construction §4.32(b)(6)</p>		
<p>II. Exhibit A - Project Description §4.51(b)</p> <p>(1) Composition, dimensions, and configuration of dams, spillways, penstocks, powerhouses, tailraces, etc.</p> <p>(2) Reservoir area, gross and usable capacity, and elevation</p> <p>(3) Number, type, and capacities of turbines and generators</p> <p>(4) Transmission line numbers, lengths, voltage, and interconnections</p> <p>(5) Appurtenant facilities and equipment (electrical, mechanical, etc.) specifications</p> <p>(6) U.S. lands identified</p>		
<p>III. Exhibit B - Project Operation §4.51(c)</p> <p>(1) Manual/automatic operation; annual plant factor; operation during adverse/mean/high water years</p>		

SUBJECT	DEFICIENT	COMMENTS
(2) Estimates of dependable capacity and generation, including: (2)(i) Recorded minimum, mean, and maximum flows; losses; flow duration curve; critical streamflow for dependable capacity (2)(ii) Area-capacity curve with gross and usable storage; rule curve (2)(iii) Plant hydraulic capacity (2)(iv) Tailwater rating curve (2)(v) Head vs. power plant capability curve; maximum, normal, and minimum heads (3) Statement of use of project power and load curves (4) Statement of plans for future development		
IV. Exhibit C - Construction History §4.51(d) (1) Construction chronology of existing structures, including: (1)(i) Commencement and completion of construction (1)(ii) Commencement of commercial operation (1)(iii) Dates of additions/modifications (2) Schedule of proposed work		
V. Exhibit D - Costs and Financing §4.51(e) (1) If initial license, a tabulated cost statement, identifying costs of: (1)(i) Land or water rights (1)(ii) Each existing structure (2) If new license, and not a muni or a state, the §14 takeover costs, including: (2)(i) Fair value (2)(ii) Net investment		

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(2)(iii) Severance damages (3) If proposed new construction, estimated costs, including: (3)(i) Land or water rights (3)(ii) Cost of each facility, including: (3)(ii)(A) Each major item (3)(ii)(B) Indirect construction costs (3)(ii)(C) Interest during construction (3)(ii)(D) Overhead, contingencies, etc. (4) Average annual project cost, including: (4)(i) Cost of capital (4)(ii) Local, state, and federal taxes (4)(iii) Depreciation (4)(iv) O&M expenses, A&G expense, insurance, contingencies, etc. (5) Value of project power and basis (6) Statement on sources and extent of financing		
VI. Exhibit F - Design Drawings §4.51(g) (1) Drawings of all major structures, showing: (1)(i) Plan views (2)(ii) Elevation views (1)(iii) Section views (2) Supporting design report, including: (2)(i) Condition of structures		

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(2)(ii) Foundations, material gradations, material strengths, stability, spillway rating curves, water levels, etc.		
(3) Five copies of supporting design report		
VII. Exhibit G - Map §4.51(h)		
Map shows location of all project works and principal features		
Project boundary shown and encloses all project features; described by surveys, contours, etc.; identifies all land owners		

ADDITIONAL COMMENTS:

VIII. Exhibit H, §16.10 (all applicants)		
Plans, abilities to operate and maintain reliable service i.e.		
Increase capacity		
Coordinate w/ upstream & downstream projects		
Coordinate w/ electrical systems to min. costs		
Short & long term need by the applic. for proj. power, i.e.		
reasonable costs & avail. of alternative sources of power if license denied		
Cost increases incurred for alternate power, if license denied		
The effect of each alternate source of power on applicant's customers, load operating characteristics, & communities served		
Data showing need, cost & avail. of alternate power sources, i.e.		
Annual cost of proj. power, including basis for calculation		

Resources req. by applicant to meet applicant's capacity & energy needs over short/long term; including energy and capacity resources, a resource analysis, & load management measures

For alternate sources of power incl. new cap. at exist. units, new construction, off-system power purchases, & load mgmt. measures - show annual cost of alternative, basis of cost, discussion of relative merit of each alternative, effect on direct provider

Effect of losing power on applicant's own industrial facilities

If Indian tribe, statement tribe's need for power

Impact on applicant's transmission system of receiving/not receiving license, i.e.

Analysis of effects of redistributing flows, line losses, new lines, w/costs

Analysis of advantages of applicant's transmission system in dist. power

Detailed single-line diagrams

If there are plans to modify, statement of need to modify proj. & conformance w/ comp. plans

If no modify plans, statement of conformity w/ compl. plans

Applicant's financial & personnel resources to meet obligations under new license

Notification by cert. of land owners, if expansion

Applicant's electricity consumption efficiency improvement program w/record of assisting customers to conserve power & does program comply w/ regulations

Names/addresses of Indian tribes if proj.

Information to be provided applicant who is an existing licensee		
Statement of measures by licensee to ensure safe mgmt, operation, & maintenance of proj. w/ descriptions of proj. operation during flood, any warning devices to ensure downstream safety, discussion of any changes that may aff. EAP under Part 12, exist. or planned structural monitoring devices, & employee & public safety record Current operation of proj. and constraints History of proj. oper. & maintenance Discussion of power losses over last 5 years Licensee's compliance record Expenses that would be reduced if project is transferred Annual fees paid under the FPA		
Information to be provided by an applicant who is not an existing licensee		
Applicant's plans to manage, operate, and maintain the project safely w/ Differences between applicant's plans & the existing licensee's plans Measures to implement the exist. EAP Applicant's plans to continue safety monitoring Applicant's request to licensee to provide transmission services		

ADDITIONAL COMMENTS:

**NEW LICENSE
MAJOR CONSTRUCTED HYDRO EXHIBIT E REGULATIONS
(Filed under 18 CFR §4.51)**

SUBJECT	DEFICIENT	COMMENTS
I. Existing environment description [§4.51(f)(1)]		
II. Water Quality [§4.51(f)(2)] <ul style="list-style-type: none"> 1. Consumptive uses 2. Existing water quality 3. Minimum flow 4. Improving water quality 5. Water quality impacts 		
III. Fishery resources [§4.51(f)(3)] <ul style="list-style-type: none"> 1. Description of existing resources 2. Agency recommended mitigation 3. Applicant proposed mitigation 4. Impacts 5. Mitigation proposed: <ul style="list-style-type: none"> a. Drawings b. operation c. implementation d. cost and financing e. maps 		
IV. Terrestrial resources and endangered species §4.51(f)(3) <ul style="list-style-type: none"> 1. Description of existing resources 		

SUBJECT	DEFICIENT	COMMENTS
2. Agency recommended mitigation 3. FWS comment on impacts on endangered species 4. Applicant recommended mitigation 5. Impacts 6. Mitigation proposed: a. Drawings b. operation c. implementation d. cost and financing e. maps		
V. Cultural resources [§4.51(f)(4)] 1. Consultation with the SHPO 2. National Register status 3. Mitigation recommendations 4. Survey and salvage a. Schedule b. Cost and financing		
VI. Recreation [§4.51(f)(5)] 1. Existing 2. Use 3. Agency recommended development 4. Applicant proposed development		

SUBJECT	DEFICIENT	COMMENTS
5. Development proposal: <ul style="list-style-type: none"> a. Operation b. Construction c. Cost and Financing d. Maps 		
VII. Land management and aesthetics [§4.51(f)(6)] <ul style="list-style-type: none"> 1. Existing uses 2. Applicant proposed mitigation 3. Wetlands 4. Costs and buffer zones 5. Development 6. Maps 		
VIII. Literature citations [§4.51(f)(7)]		
IX. Consultation <ul style="list-style-type: none"> 1. Stage 1 Requirements [§16.8(b)] Applicant has provided agencies with sufficient information. 2. Stage 2 Requirements [§16.8(c)] Applicant has conducted necessary studies or provided an acceptable reason for not conducting such studies. <p>Applicant has provided agencies with:</p> <ul style="list-style-type: none"> (1) a copy of the draft application. (2) the results of all studies. (3) a statement indicating the type of application the applicant expects to file with the Commission. 		

SUBJECT	DEFICIENT	COMMENTS
<p>Applicant has allowed the agencies sufficient time to comment on the draft application prior to filing. [§16.8(c)(5)]; 90 days.</p> <p>3. Stage 3 Requirements [§16.8(d)] Applicant has served a copy of the final application on each of the agencies.</p> <p>4. General Requirements.</p> <p>Applicant has documented that all 3 stages of the consultation process were fully satisfied. [§16.8(f)]</p> <p>Applicant has provided a copy of a 401 certificate or a copy of a request for 401 certification. [§16.8(f)(7)(i)]</p> <p>Applicant has included agency consultation letters or a detailed explanation of attempts to consult. [§16.8(f)]</p> <p>The circumstances of any agency's waivers to any of the above consultation requirements have been adequately described. [§16.8(f)]</p> <p>Applicant has discussed compliance with any applicable state and regional comprehensive plans. [§16.8(f)(6)]</p>		

ADDITIONAL COMMENTS:

**NEW LICENSE
MINOR OR MAJOR, LESS THAN 5 MW, CONSTRUCTED HYDRO EXHIBITS A,F-H REGULATIONS (4.61)**

SUBJECT	DEFICIENT	COMMENTS
<p>I. Initial Statement §4.61(b)</p> <p>Project Name</p> <p>Project Location</p> <p>Address</p> <p>Federal, state, local political entities and facilities identified §4.32(a)(2)</p> <p>U.S. Lands Occupied</p>		
<p>II. Exhibit A - Proj. Desc.</p> <p>No. generating units, capacity, future?</p> <p>Turbine type</p> <p>Describe proj. operation</p> <p>Annual generation</p> <p>Reservoir surface area</p> <p>Head</p> <p>Hydraulic capacity</p> <p>Flow duration curve</p> <p>Drainage area</p> <p>Sizes, capacities, & constr. materials of structures</p> <p>Project cost</p> <p>Project purpose</p>		

SUBJECT	DEFICIENT	COMMENTS
III. Exhibit F-Drawings of Project Works §4.61(e) Elevation, profile, section of dam and powerhouse Drawings of other structures North Arrow		
IV. Exhibit G - Map §4.61(f) Shows location of all facilities and relationship to stream and nearest town Correct scale Project boundary Lists owners of property on which project is located		
VIII. Exhibit H, §16.10 (all applicants) Plans, abilities to operate and maintain reliable service i.e. Increase capacity Coordinate w/ upstream & downstream projects Coordinate w/ electrical systems to min. costs Short & long term need by the applic. for proj. power, i.e. reasonable costs & avail. of alternative sources of power if license denied Cost increases incurred for alternate power, if license denied The effect of each alternate source of power on applicant's customers, load operating characteristics, & communities served Data showing need, cost & avail. of alternate power sources, i.e. Annual cost of proj. power, including basis for calculation		

SUBJECT	DEFICIENT	COMMENTS
<p>Resources req. by applicant to meet applicant's capacity & energy needs over short/long term; including energy and capacity resources, a resource analysis, & load management measures</p> <p>For alternate sources of power incl. new cap. at exist. units, new construction, off-system power purchases, & load mgmt. measures - show annual cost of alternative, basis of cost, discussion of relative merit of each alternative, effect on direct provider</p> <p>Effect of losing power on applicant's own industrial facilities</p> <p>If Indian tribe, statement tribe's need for power</p> <p>Impact on applicant's transmission system of receiving/not receiving license, i.e.</p> <p>Analysis of effects of redistributing flows, line losses, new lines, w/costs</p> <p>Analysis of advantages of applicant's transmission system in dist. power</p> <p>Detailed single-line diagrams</p> <p>If there are plans to modify, statement of need to modify proj. & conformance w/ comp. plans</p> <p>If no modify plans, statement of conformity w/ compl. plans</p> <p>Applicant's financial & personnel resources to meet obligations under new license</p> <p>Notification by cert. of land owners, if expansion</p> <p>Applicant's electricity consumption efficiency improvement program w/record of assisting customers to conserve power & does program comply w/ regulations</p>		

SUBJECT	DEFICIENT	COMMENTS
Names/addresses of Indian tribes if proj.		
Information to be provided applicant who is an existing licensee		
<p>Statement of measures by licensee to ensure safe mgmt, operation, & maintenance of proj. w/ descriptions of proj. operation during flood, any warning devices to ensure downstream safety, discussion of any changes that may aff. EAP under Part 12, exist. or planned structural monitoring devices, & employee & public safety record</p> <p>Current operation of proj. and constraints</p> <p>History of proj. oper. & maintenance</p> <p>Discussion of power losses over last 5 years</p> <p>Licensee's compliance record</p> <p>Expenses that would be reduced if project is transferred</p> <p>Annual fees paid under the FPA</p>		
Information to be provided by an applicant who is not an existing licensee		
<p>Applicant's plans to manage, operate, and maintain the project safely w/;</p> <p>Differences between applicant's plans & the existing licensee's plans</p> <p>Measures to implement the exist. EAP</p> <p>Applicant's plans to continue safety monitoring</p> <p>Applicant's request to licensee to provide transmission services</p>		

ADDITIONAL COMMENTS:

**NEW LICENSE
MINOR OR MAJOR, LESS THAN 5 MW, CONSTRUCTED HYDRO EXHIBIT E REGULATIONS
(Filed under 18 CFR §4.61)**

SUBJECT	DEFICIENT	COMMENTS
<p>I. Existing environment description [§4.61(d)(2)(i)]</p> <p>Vegetative cover</p> <p>Fish and wildlife resources</p> <p>Water quality and quantity</p> <p>Recreational uses</p> <p>Historical and archeological resources (sites included in or eligible for National Register)</p> <p>Scenic and aesthetic resources</p> <p>Endangered or threatened species, critical habitats</p>		
<p>II. Description of environmental impacts and measures proposed to protect and enhance environmental resources [§4.61(d)(2)(ii)]</p>		
<p>III. Consultation.</p> <p>1. Stage 1 Requirements [§16.8(b)] Applicant has provided agencies with sufficient information.</p> <p>2. Stage 2 Requirements [§16.8(c)] Applicant has conducted necessary studies or provided an acceptable reason for not conducting such studies.</p> <p>Applicant has provided agencies with:</p> <p>(1) a copy of the draft application.</p> <p>(2) the results of all studies.</p>		

SUBJECT	DEFICIENT	COMMENTS
<p>(3) a statement indicating the type of application the applicant expects to file with the Commission.</p> <p>Applicant has allowed the agencies sufficient time to comment on the draft application prior to filing. [§16.8(c)(5)]; 90 days.</p> <p>3. Stage 3 Requirements [§16.8(d)] Applicant has served a copy of the final application on each of the agencies.</p> <p>4. General Requirements.</p> <p>Applicant has documented that all 3 stages of the consultation process were fully satisfied. [§16.8(f)]</p> <p>Applicant has provided a copy of a 401 certificate or a copy of a request for 401 certification. [§16.8(f)(7)(i)]</p> <p>Applicant has included agency consultation letters or a detailed explanation of attempts to consult. [§16.8(f)]</p> <p>The circumstances of any agency's waivers to any of the above consultation requirements have been adequately described. [§16.8(f)]</p> <p>Applicant has discussed compliance with any applicable state and regional comprehensive plans. [§16.8(f)(6)]</p>		

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